

IN THE CLAIMS:

Claim 1 has been amended as follows:

1. (Currently Amended) A method for positioning a patient in a medical device having a treatment unit configured to receive a patient therein, a computer, and a patient bed, configured to receive a patient thereon, movable in at least one plane relative to said treatment unit, said method comprising the steps of:

with an image-recording device, acquiring an empty image of the patient bed with no patient thereon, and acquiring an actual image of an exterior of the bed_with the patient on the patient bed, and subtracting said empty image from said actual image to obtain a subtraction image, and displaying said subtraction image on a display screen connected to said computer;

providing information to said computer identifying a spatial correlation between a coordinate system of the treatment unit and said image-recording device; and

by executing an image processing program in said computer, detecting a body region of the patient by analyzing said subtraction image to identify geometry of the patient in the subtraction image and comparing the geometry to known and statistically determined proportions of human anatomy and automatically, based on a result of executing said image processing program, displaying a suggested scan area in said subtraction image on said display screen that covers said body region.

2. (Previously Presented) A method as claimed in claim 1 comprising, in said image processing program, detecting two different body regions of the patient by analyzing said subtraction image and, for each of said different body regions, and

automatically displaying a suggested scan area in said subtraction image on said display screen that covers that body region.

3. (Original). A method as claimed in claim 1 comprising optically emphasizing the detected body region on said display screen.

4. (Original). A method as claimed in claim 1 comprising manually entering a designation into said computer of said body region to be detected by said image processing program.

5. (Original). A method as claimed in claim 4 comprising entering said designation of said body region to be detected into said computer using a displayed menu.

6. (Original). A method as claimed in claim 4 comprising entering said designation of said body region to be detected into said computer by operating a keypad connected to said computer.

7. (Original). A method as claimed in claim 4 comprising allowing selection by a user of multiple body regions to be detected simultaneously.

8. (Original). A method as claimed in claim 1 comprising allowing manual alteration of the suggested scan area displayed on said display screen by said image processing program.

9. (Original). A method as claimed in claim 1 comprising designating said suggested scan area on said display screen with two lines respectively disposed at edges of said suggested scan area.

10. (Original). A method as claimed in claim 9 comprising designating said suggested scan area on said display screen with two parallel lines at the respective edges of the suggested scan area.

11. (Previously Presented). A method as claimed in claim 1 wherein said image-recording device is a first image-recording device and wherein said empty image is a first empty image, and said actual image is a first actual image, and said subtraction image is a first subtraction image, and comprising the additional steps of:

acquiring a second empty image of the patient bed with no patient thereon

and acquiring a second actual image of the bed with the patient on the patient bed with a second image-recording device, having a recording axis that is independent of a recording axis of said first image-recording device, and subtracting said second empty image from said second actual image to obtain a second subtraction image, and also displaying said second subtraction image on said computer;

providing information to said computer identifying a spatial correlation between the coordinate system of the treatment unit and said second image-recording device; and

with said image processing program in said computer, displaying said suggested scan area in each of said first and second subtraction images.

12. (Original). A method as claimed in claim 11 comprising disposing said first and second image-recording devices relative to each other with the respective recording axes thereof being orthogonal to each other.

Claim 13 has been amended as follows:

13. (Currently Amended). A method as claimed in claim 11 wherein said patient bed is movable in a plurality of movement planes relative to said treatment unit, and comprising the additional steps of:

for each movement plane, acquiring said first and second actual images the patient on the patient bed in that movement plane;
providing information to said computer identifying a spatial correlation in that movement plane between the coordinate system of the treatment unit and each of said first and second image-recording devices; and
with said image processing program displaying said suggested scan area in each of said subtraction images on said display screen.

Claim 14 has been amended as follows:

14. (Currently Amended). An arrangement for positioning a patient in a medical device having a treatment unit adapted to receive a patient therein, and a patient bed, adapted configured to receive a patient thereon, movable in at least one plane relative to said treatment unit, said arrangement comprising:

a computer;

an image-recording device ~~for acquiring~~ that acquires an empty image of the patient bed with no patient thereon, and for acquiring an actual image of the bed and an exterior of the patient on the patient bed, and subtracting that subtracts said empty image from said actual image to obtain a subtraction image, and ~~for displaying~~ that displays said subtraction image on a display screen connected to said computer;

said computer containing information identifying a spatial correlation between a coordinate system of the treatment unit and said image-recording device; and

wherein said computer detects a body region of the patient by analyzing said image to identify geometry of the patient in the subtraction image and comparing the geometry to known and statistically determined proportions of human anatomy and, based on a result of executing said image processing program, automatically displays a suggested scan area in said subtraction image on said display screen that covers said body region.

15. (Previously Presented) An arrangement as claimed in claim 14 wherein said computer detects two different body regions of the patient by analyzing said image and, for each of said different body regions, automatically displays a suggested scan area in said subtraction image on said display screen that covers that body region.

16. (Original). An arrangement as claimed in claim 14 wherein said computer optically emphasizes the detected body region on said display screen.

17. (Original). An arrangement as claimed in claim 14 comprising an input unit allowing manual entry of a designation into said computer of said body region to be detected by said computer.

18. (Original). An arrangement as claimed in claim 17 wherein said input unit is a displayed menu.

19. (Original). An arrangement as claimed in claim 17 wherein said input unit is a keypad connected to said computer.

20. (Original). An arrangement as claimed in claim 17 wherein said input unit allows selection by a user of multiple body regions to be detected simultaneously.

21. (Original). An arrangement as claimed in claim 14 comprising an input unit allowing manual alteration of the suggested scan area displayed on said display screen by said computer.

22. (Original). An arrangement as claimed in claim 14 wherein said computer designates said suggested scan area on said display screen with two lines respectively disposed at edges of said suggested scan area.

23. (Original). An arrangement as claimed in claim 22 wherein said computer designates said suggested scan area on said display screen with two parallel lines at the respective edges of the suggested scan area.

24. (Previously Presented) An arrangement as claimed in claim 14 wherein said image-recording device is a first image-recording device and wherein said actual image is a first actual image, and said actual image is a first actual image, and said subtraction image is a first subtraction image, and comprising:

a second image recording device which acquires a second empty image of the patient bed with no patient thereon, and which acquires a second actual image of the bed with the patient on the patient bed, said second image recording device having a recording axis that is independent of a recording axis of said first image-recording device, and which subtracts said second empty image from said second actual image to obtain a second subtraction image, and which also displays said second subtraction image on said display screen connected to said computer;

wherein said computer contains information identifying a spatial correlation between the coordinate system of the treatment unit and said second image-recording device; and

wherein said computer displays said suggested scan area in each of said first and second subtraction images.

25. (Original). An arrangement as claimed in claim 24 wherein said first and second image-recording devices are disposed relative to each other with the respective recording axes thereof being orthogonal to each other.

26. (Previously Presented) An arrangement as claimed in claim 44 24 wherein said patient bed is movable in a plurality of movement planes relative to said treatment unit, and comprising the additional steps of:

for each movement plane, said first and second image recording devices respectively acquiring said first and second actual images with the patient on the patient bed in that movement plane;

and wherein said computer contains information identifying a spatial correlation in that movement plane between the coordinate system of the treatment unit and each of said image-recording devices; and

wherein said computer displays said suggested scan area in each of said subtraction images on said display screen.